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ORIGINAL PAPER

Thinking About the Future as a Way to Succeed in the Present: A Longitudinal Study of Future Orientation and Violent Behaviors Among African American Youth

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Abstract Previous research has linked higher levels of hopelessness about one's future to violent behavior during adolescence; however, little is known about this relationship over time for adolescents. Using growth curve modeling, we tested the association between future orientation and violent behavior across the high school years of adolescence in a sample of African American youth ($n = 681$). Variation based on demographic characteristics (i.e., sex, SES, previous violence) was explored. At baseline, differences in violent behavior varied by demographic characteristics. Overall, violent behavior decreased with age. Higher levels of future orientation were associated with greater decreases in violent behavior over time. Demographic characteristics were not associated with change in violent behavior overtime. Our findings suggest that future orientation can act as a promotive factor for at risk African American youth. Interventions that help support the development of future goals and aspirations could play a vital role in violence prevention efforts.

Keywords Future orientation · Violence · Adolescence · Growth curve modeling

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Youth Violence

Youth violence is a significant social and public health problem. Youth who participate in violence are at risk for potentially life-threatening outcomes, including imprisonment, injury, and death (Centers for Disease Control and Prevention (CDC) 2009, National Adolescent Health Information Center 2007). In 2006, 5,958 young people, between the ages of 10 and 24 years were murdered in the United States (CDC 2009). Of these, 84% were killed with firearms (CDC 2009). Members of specific demographic groups, especially males and African Americans, are at particular risk for involvement in serious forms of violence and related negative health and social sequelae (e.g., homicide, incarceration) (CDC 2009; Herrenkohl et al. 2000). While death is the most severe consequence of violence, nonfatal injuries are far more common. In 2007, more than 668,000 10–24 year olds in the United States were treated in emergency rooms for injuries caused by violence (CDC 2009).

Violence rates peak during the adolescent years. Unfortunately, many acts of adolescent violence do not involve either the healthcare or criminal justice system and are therefore more difficult to quantify. Nationwide, 36% of all high school students reported having been in a physical fight in the past year and almost 18% reported carrying a weapon in the past 30 days (CDC 2009; CDC 2008). For some young people, violent behavior progresses from physical fighting during early adolescence to more lethal forms, such as violence with a weapon, during later adolescence (Dahlberg and Potter 2001). Violence involvement during adolescence is also a potent risk factor for ongoing violence involvement into young adulthood (Borowsky et al. 2008; Dahlberg and Potter 2001; Herrenkohl et al. 2000).

Research on youth violence includes risk and promotive factors (Borowsky et al. 2008; Brookmeyer et al. 2005; Farrington 2007; Gorman-Smith et al. 2004; Herrenkohl et al. 2000; Resnick et al. 1997, 2004; Sampson and Raudenbush 1997; Valois et al. 2002). At the individual level, factors correlated with poor academic achievement (e.g., impulsivity, attention and learning problems, and antisocial behavior) have been associated with higher levels of violence involvement (Farrington 1989, 2007). On the other hand, skills linked to academic success (e.g., social skills, self-efficacy, and a sense of purpose) have been deemed as promotive (Borowsky et al. 2008; DuRant et al. 1994; Resnick et al. 2004). Yet, few studies have explored the concept of future orientation as it relates to violence involvement among African American adolescents, and even fewer have examined the relationship between future orientation and violence longitudinally.

Future Orientation

Future orientation is an individual's thoughts, plans, motivations, hopes, and feelings about his or her future (Arnett 2000; Nurmi 1989a, 1991; Nuttin 1964; Trommsdorff 1983). It provides the basis for setting goals and making plans for the future. Given that adolescence is a time when future orientation is rapidly developing, differentiating, and expanding (Greene 1986), future plans become increasingly detailed as youth begin to make more realistic evaluations of their ability to reach future goals, including critical decisions concerning education and occupation (Nurmi 1989b). A hopeful sense for the future can facilitate positive development and successful transition into adulthood (Arnett 2000; Nurmi 1989b; Nurmi et al. 1995).

Expectations about the future are learned at an early age through culture, religion, social class, education and family (Nurmi 1991; Nurmi and Pulliainen 1991). A sense of hopefulness about one's future can be learned through social interactions and physical environments during childhood and early adolescence (Lynch 1965; McGee 1984; Piaget 1932; Stotland 1969). Relationships with supportive parents and reliable, caring, competent adults facilitate the development of a positive future orientation (Aronowitz 2005; Kerpelman et al. 2008; McCabe and Barnett 2000). Environmental factors such as violence and poverty may limit an adolescent's ability to think about the future and inhibit the development of hope for the future (Lorion and Saltzman 1993; McGee 1984). Poverty may negatively influence an adolescent's ability to think about the future, leading to feelings of hopelessness (Lorion and Saltzman 1993). Likewise, life within a chronically violent community is one in which trust and hope may not be cultivated (Lorion and Saltzman 1993). Adolescents who grow up in violent environments may not be able to see a future for themselves and believe their only option is a life of violence. This might result in feelings of hopelessness about themselves and their future. If youth do not have positive expectations for the future and do not see current behaviors as linked to future goals they may not be concerned about consequence of risk taking behaviors such as criminal involvement and violent behaviors. Conversely, if youth consider a positive future for themselves they would be expected to engage in fewer health compromising behaviors to help ensure they reach their vision of their future. Consequently, in this study we examined the relationship between future orientation and violent behavior during adolescence.

Research on future orientation as a promotive factor for youth has been primarily cross-sectional and focused on outcomes such as academic achievement and school functioning (Adelabu 2008; Birnbaum et al. 2003). Adelabu (2008) found that youth with higher levels of future orientation had higher GPAs than youth with less future orientation. Less information is available on the role of future orientation as a promotive factor compensating for or protecting against adolescent risk behaviors. Robbins and Bryan (2004) found that adjudicated youth with a positive future orientation were less likely to use marijuana, had less alcohol related problems including lower frequency and quantity of use, and perceived greater risks associated with alcohol and drug use behaviors. This study, however, was cross-sectional and does not inform us on the relationship between future orientation and risk behaviors over time.

Studies on the relationship between future orientation and violent and aggressive behaviors are limited and have yielded inconsistent results (Birnbaum et al. 2003; Blitstein et al. 2005; DuRant et al. 1994, 2000). Measured as the adolescent's perception of the chance they will live to age 35, get HIV or AIDS, be a parent by age 18 and ever get in trouble with the police, a poor future outlook was a strong predictor of violent behavior in a cross-sectional sample of 7th graders (Birnbaum et al. 2003). Yet, using the same measure to examine future outlook in 7th grade and violent behavior 1 year later (8th grade), Blitstein et al. (2005) found that youth with a more positive future outlook reported higher rates of violent behavior than youth with a poorer future outlook. Use of violence has also been negatively correlated with the expectancy of being alive at age 25 (DuRant et al. 1994, 2000). Future orientation and aspirations have been identified as potential moderators for youth exposed to violence and subsequent participation in delinquent behaviors (Alston 2009). As these studies were primarily cross-sectional, longitudinal research on future orientation is lacking. Longitudinal data provides the

ability to estimate growth trajectories and to determine if the change in future orientation over time is related to change in other adolescent outcomes (e.g., violent behavior). Using longitudinal data, the current study provides insight into the potential role of future orientation as a promotive factor over time for youth at-risk for academic failure and involvement in violence, and examines whether there is variation based on demographic characteristics such as sex, SES, and high school completion.

Purpose and Hypotheses

This study included a sample of African American youth followed through their high school years (ages 14–18) who, when selected for participation, had been at risk for high school dropout (i.e., a grade point average of 3.0 or lower in eight grade). Our study is unique as it includes a longitudinal design with a large urban sample of at-risk youth who may be at greater risk for negative outcomes (including participation in violence) because of low school achievement prior to high school. In addition, this sample is unique as it provides the opportunity to examine the relationship between future orientation and violent behavior over time in a large sample of at-risk African American youth. To date, few studies have explored the relationship between future orientation and violent behavior longitudinally, particularly among African American adolescents.

The primary objective of our study was to examine the relationship between future orientation and violent behaviors across the high school years of adolescence. We tested the association between future orientation and violent behavior during adolescence using a multilevel growth curve model. We hypothesized that higher levels of future orientation would be associated with less involvement in violent behaviors over time. We then examined differences in the association between future orientation and violent behavior based on previous violent behavior and individual characteristics (e.g., age, gender, SES, and high school completion). We expected differences in the association between future orientation and violent behaviors during adolescence based on individual characteristics (e.g., completion of high school, SES, and gender) and previous violent behaviors.

Method

This study is based on a 10-year longitudinal study of youth from mid-adolescence (i.e., high school years) to young adulthood. Data were collected from 850 adolescents at-risk for high school dropout at the beginning the ninth grade in four public high schools in a Midwestern city. To be eligible for the study, participants had a grade point average of 3.0 or lower at the end of the eighth grade, were not diagnosed by the school as having emotional or developmental impairments, and self-identified as African American, White, or Bi-racial (African American and White). The threshold for grade point average (3.0 or lower) was selected to exclude the most highly achieving youth while also retaining a sufficient study sample. Waves 1 through 4 correspond to the participants' high school years.

Sample

Adolescents self-reporting as African American constituted eighty percent of the sample in Wave 1 ($n = 681$). We focus our analyses on this African American subsample because we were interested in the relationship between future orientation and violent behavior among a sample of youth at greater risk for violent behavior. Seventy-seven African American participants were dropped from our analyses due to missing data. The mean age at Wave 1 for the remaining 604 African American participants (53% female) in this study was 14.4 years (SD = .66).

Data Collection

Structured face-to-face interviews were conducted with students in school or in a community setting if the participants could not be found in school. Interviews averaged 60 min. After the interview portion of the protocol, participants completed a self-administered paper and pencil questionnaire about alcohol and substance use, sexual behavior and other sensitive information. The study had a 90% response rate over the first four Waves of data collection and a 68% response rate over all eight Waves. The University of Michigan's Institutional Review Board approved the study design and procedures (UM-IRB#H03-0001309).

Measures

Means and standard deviations for each measure are presented by gender in Table 1.

Violent Behavior

Scores from 7 items were used to assess violent behavior. Participants indicated how often they had engaged in each behavior during the preceding 12 months: *carried a knife*, *carried a gun*, *gotten into a fight at school*, *gotten into a fight outside of school*, *taken part in a group fight*, *hurt someone badly enough to need bandages or a doctor*, and *used a knife, gun or some other thing (like a club) to get*

Table 1 Descriptive statistics for study variables across waves by sex

	Wave 2			Wave 3			Wave 4		
	M(SD)	*N*	95% CI	M(SD)	*N*	95% CI	M(SD)	*N*	95% CI
Future orientation									
Males	3.34(.92)*	271	(3.23, 3.45)	3.37(.87)*	267	(3.27, 3.47)	3.42(.84)*	261	(3.32, 3.52)
Females	3.53(.79)	312	(3.44, 3.62)	3.51(.84)	309	(3.42, 3.60)	3.55(.75)	303	(3.47, 3.63)
Violent behavior									
Males	.58(.76)*	273	(.49, .67)	.50(.70)*	267	(.42, .58)	.41(.68)*	261	(.33, .49)
Females	.38(.57)	312	(.32, .44)	.28(.49)	309	(.23, .33)	.26(.51)	305	(.20, .32)

* $P < .05$

something from a person. Response options ranged from 0 (*0 times)* to 4 (*4 or more times)*. We computed a mean composite score across the 7 items. Higher scores indicated more violent behavior. These 7 items loaded as a single-factor solution in exploratory factor analyses and had adequate reliability over time (Cronbach's α ranged from .79 −.80). The year 1 covariate (control variable) measure of previous violence consisted of a 6 item scale, as fighting at school and fighting outside of school was asked as a single item (*gotten into a fight at school or at work*) during the first wave of data collection ($\alpha = .75$).

Future Orientation

How often the participant thought about the future was measured with two items: *I think a lot about my future job* and *I think a lot about what my career will be*. Response options were on a 4-point scale ranging from 0 (*not true*) to 4 (*very true*). We computed a composite score by taking the mean for the 2 items across each Wave, and used this measure as a time-varying covariate in our analysis. Inter-item correlation ranged from .60–.63.

Individual Demographic Characteristics

In Wave 1, we asked participants to report their age (i.e., computed by subtracting the date of interview from the participants' birth month and year), and sex (male = 0, female = 1). Socioeconomic status was assessed as the highest occupational prestige score for either parent (Nakao and Treas 1990). In later assessments (Waves 5 thru 8; i.e., young adulthood years), participants were asked to report their highest level of educational degree using the following categories: none, GED, high school diploma, training certification, associate degree, or bachelor's degree. We used this measure in our analysis to account for potential variation in youth's trajectories over time. We created a high school completion dummy variable to determine if youth had not completed high school or its equivalent (11%) or had received at least a high school diploma or GED (89%). Youth who did not complete high school served as the referent group.

Data Analytic Strategy

We conducted preliminary attrition analyses across all study variables comparing participants with complete data ($n = 604$) to those who were excluded from this study ($n = 77$) because there were missing data on the demographic characteristics. Descriptive statistics for violence and future orientation were calculated by sex for each wave of data; *t* tests were used to examine differences by sex. We used HLM 6.08 (Scientific Software International 2005) to model violence over time and test its association with the time-varying covariate (future orientation) across adolescence (Waves 2–4). While a repeated measures regression performs list-wise deletion for cases with missing values in one or more data points, HLM maximizes all available data because its algorithms do not require the time-varying covariates to have data across all Waves in order to compute growth estimates for each participant (Raudenbush and Bryk 2002). Similar to repeated measures regression, multilevel modeling allows the total variance to be divided into within-individual variation (Level One Model; i.e., change in violence over time) and between-individual variation (Level Two Model; i.e., person-centered characteristics like sex). Because not all future and violence items were collected at Wave 1, we focused our analyses on Waves 2 through 4.

We first modeled the change in violent behavior over time using an age-centered approach starting at age 15. This approach models the change in violent behavior for every year increase since age 15 across adolescence. After modeling the linear growth of violence, we then assessed whether non-linear terms would improve the model fit; however, we found no support for a nonlinear growth model of violent behavior over time (data not shown). We then entered future orientation as a time-varying covariate into the growth curve model with violent behavior. The inclusion of future orientation on the growth curve model

allowed us to test our main hypothesis (i.e., higher levels of future orientation would be associated with less violent behaviors over time). We also created a time by main effect interaction (e.g., Future x Age) to acknowledge the possibility that the association between future orientation and violent behaviors could have a non-proportional association (i.e., the slope is not constant over time). A significant interaction would indicate that the association between violent behavior and future orientation varies across adolescence.

Given that we hypothesized that there would be differences in the association between future orientation and violent behaviors during adolescence, we examined the random effects for both the intercept and the linear growth terms. If random effects were found, we explored whether individual characteristics (i.e., sex, socioeconomic status, and high-school dropout) or previous violence explained this variation. Non-significant variables were dropped from the analyses. For brevity and parsimony, only significant results are discussed.

Results

Attrition Analyses

Participants excluded from the analyses were no different in SES ($t_{(593)} = -.41$; *n.s.*) at Wave 1 than those included in the analyses. We found no differences in levels of violent behavior ($t_{(647)} = .55$; *n.s.*) or future orientation ($t_{(645)} = -.82$; *n.s.*) at wave 2. Adolescent males were more likely to be excluded from our analyses than females ($\chi^2_{(1)} = 11.68$; $P \leq .001$). In comparing male participants included in this analysis with those omitted from it, we found no difference in levels of violent behavior ($t_{(334)} = -.41$; *n.s.*) or future orientation ($t_{(334)} = -.17$; *n.s.*) at wave 2. We also compared female participants included in this analysis with those omitted from it and found no difference in levels of violent behavior ($t_{(315)} = .35$; *n.s.*) future orientation ($t_{(313)} = -.47$; *n.s.*) at wave 2.

Changes in Violent Behavior over Time

On average, participants reported between 0 and 1 acts of violence (B = .56, SE = .09; $P \leq .001$) at age 15; however, differences in baseline violent behavior varied by person-centered characteristics ($\chi^2_{(597)} = 1876.54$; $P \leq .001$). Youth who reported higher levels of past violent behaviors were more likely to report higher levels of violence at age 15 (B = .49, SE = 0.05; $P \leq .001$) than youth who had lower levels of past violence. Females (B = −.13, SE = .04; $P \leq .001$) also reported less violent behaviors than their male counterparts at baseline. High school completion and SES were not associated with violent behavior at baseline.

When we modeled violent behavior over time, we found violent behavior decreased with every additional year of age (B = −0.06, SE = 0.01; $P \leq .001$). We then examined whether random effects were present in the linear slope of violent behavior. Although random variation was identified ($\chi^2_{(359)} = 538.97$; $P \leq .001$), this variation was not explained by our person-centered characteristics (e.g., sex, education, SES, or Wave 1 violent behavior).

We then included future orientation in the model as a time-varying covariate in order to examine whether future orientation was associated with violent behavior across adolescence (see Table 2). We found a negative association between future orientation and violent behavior over time (B = −0.04, SE = 0.02; $P \leq .01$). For each unit increase in future orientation, there is a decrease in violent behavior across each additional year of age (see Fig. 1). Given our interest in understanding whether person-centered

Table 2 Multilevel hierarchical model of violent behavior differences across adolescence

	B(SE)	95% CI
Violence difference at age 15 (π_0)		
Base (B_{00})	0.56(.09)**	(0.38, 0.74)
Sex (B_{01})	−0.13(.04)**	(−0.21, −0.06)
Education (B_{02})	−.06(.06)	(−0.18, 0.06)
SES (B_{03})	−.003(.002)‡	(−0.007, 0.001)
Previous violence (B_{04})	0.49(.05)**	(0.39, 0.59)
Mean linear change per year (π_1)		
Age (B_{10})	−0.06(.01)**	(−0.08, −0.04)
Future orientation (π_2)	−0.04(.02)*	(−0.08, −0.001)

* $P < .001$, ** $P < .01$, ‡ $P = .06$

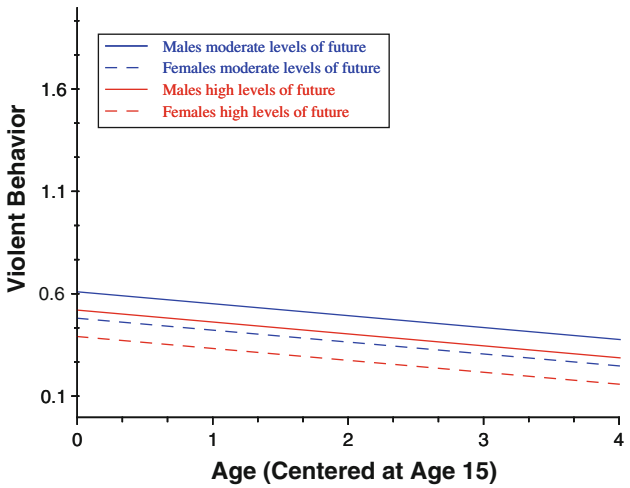

Fig. 1 Growth model of future orientation on violent behavior across adolescence by gender

characteristics would modify the relationship between future orientation and violent behavior, we also examined whether random effects were present. Although random variation was noted in the relationship between future orientation and violent behavior over time ($\chi^2_{(364)} = 479.34$; $P < .001$), we found no support for differing trajectories by Wave 1 violent behavior, sex, education, or SES. Finally, we examined whether the association between future orientation and violent behavior changed across adolescence by including the time-varying interaction term (i.e., Age x Future Orientation). No interaction effect was found.

Discussion

Our findings support our primary hypothesis that higher levels of future orientation are associated with less violent behaviors during adolescence. For the young people in our study, higher levels of future orientation were associated with greater decreases in violent behavior over time. This is consistent with the few primarily cross-sectional studies on the association between future orientation and violent behavior among youth (Birnbaum et al. 2003; DuRant et al. 1994, 2000). Less future orientation places youth at potentially greater risk of continued (or higher levels of) violent behavior throughout adolescence, which also places them at greater risk of imprisonment, injury, and untimely death (CDC 2009). In addition, violence can affect their health and well-being by placing them at risk of not completing the developmental tasks of adolescence and developing into healthy, productive adults. Our findings support the notion that during adolescence, an orientation to and a hopeful sense of the future can facilitate positive development and successful transition into adulthood (Nurmi 1989a, b; Nurmi et al. 1995).

We hypothesized differences in violent behavior based on previous violence and demographic characteristics such as age, sex, SES, and high school completion. We further anticipated that individual demographic characteristics (i.e., education or SES) and previous violent behavior would be associated with change in violent behavior overtime. Although we found males and 9th grade violent behavior predicted 10th grade violent behavior, we did not find any individual level effects, including wave 1 violent behavior, predicting change in violent behavior overtime. These results are not consistent with previous research on violent behavior during adolescence. While previous violent behavior is a strong predictor of subsequent violent behavior (Borowsky et al. 2008; Herrenkohl et al. 2000), previous violence may not have the same effect on change in violent behavior over time. We may not have found effects for SES because our sample was somewhat economically homogenous (albeit lower SES overall), creating less variation to explain variability in the relationship between future orientation and violence. We may not have found an effect based on educational status due to the use of a dichotomous measure for educational status (high school dropout) and the homogeneity of our sample in regards to educational attainment. While we found differences by sex at baseline, youth's violence trajectories did not differ by sex.

Overall, violent behavior decreased with age. This decrease in violent behaviors is consistent with other research on violence during adolescence and young adulthood for at risk youth (Graham and Bowling 1995; Snyder and Sickmund 2006). Most research indicates a peak in violent behavior between ages 16–18, with participation in violent behaviors decreasing thereafter (Graham and Bowling 1995). Developmentally, the ability to visualize and plan for the future occurs during adolescence. Future orientation may play a role in this decrease in violent behavior during later adolescence.

Although research available on the role of future orientation as a promotive factor operating to reduce youth violence is limited, other researchers have noted that future orientation, or the ability to envision a future, may play a role in developing resiliency (Aronowitz 2005). Future orientation encompasses an individual's thoughts, feelings and hopes about the future, and provides a basis for setting goals and making plans. During adolescence, this sense of hopefulness for the future can facilitate positive development and successful transition into adulthood (Nurmi 1989a, b; Nurmi et al. 1995). High levels of hope have been associated with scholastic achievement, social acceptance, feelings of self-worth, and overall psychological well-being (Gilman et al. 2006; Miller and Powers 1988; Snyder et al. 1997; Valle et al. 2004). Conversely, hopelessness has been associated with depression, school problems and risk behaviors including engaging in violence, substance use and risky sexual behaviors (Bolland 2003; Kashani et al. 1989; Spirito et al. 1988). Youth who do not have a sense of hope for the future, and lack positive expectations about their future, may not be concerned about consequence of risk taking behaviors such as involvement in violent behaviors.

Limitations of this study should be noted. First, our sample included urban African American youth who were at risk for negative outcomes because of low school achievement. Therefore, our findings may not be generalizable to African American youth as a whole. Yet, by their senior year in high school the range of GPA's in the sample was more normally distributed (Zimmerman et al. 2002). In addition, our findings may not be generalizable to other ethnic groups of youth. A future direction would be to examine the relationship between future orientation and

violent behavior across ethnic groups including multiple non-white samples. Second, our study is based on self-report data of violent behavior and may be influenced by our measure of violent behavior, respondent recall of events, or by social desirability. Our measure assessed a variety of violent behaviors over the past 12 months, combining single items into a scale of violence. Items ranged in severity from weapon carrying to weapon use with each item receiving equal weight in the scale. This equal weighting limits the ability to understand differences based on severity of the individual violent behaviors. In addition, while weapon carrying has been associated with participation in violence (DuRant et al. 1995; Thurnherr et al. 2008), weapon carrying may reflect the need to protect one's self when living in unsafe environments (Cook and Ludwig 2004; DuRant et al. 1994). Taken together, these considerations suggest that although our measure of violent behavior is the same as used by others (Resnick et al. 2004), future measures that take into account both timing and severity may provide a more precise assessment. Third, our measure of future orientation consisted of two items assessing thoughts about future career and job. Our measure is limited as it focuses only on career and job. Yet, even with the limited nature of our measure we found effects. Our study suggests a more comprehensive measure of future orientation is warranted. A broader measure of future orientation that incorporates items measuring hope, purpose, and meaning in life, along with items measuring future expectations in relationship to job, career, and family would be useful. Finally, unexplained variation in age and future remained in our model. While we included previous violent behavior and demographic characteristics (i.e., sex, education, or SES), we may have excluded other variables that would help explain these relationships over time most notably a more comprehensive measure of future orientation. Future research that includes assessment of other aspects of future orientation (i.e., hope, purpose and meaning in life) may both help explain more variation in violent behavior overtime and provide more detailed and nuanced analysis of the effects of future orientation for violent behavior and other problems behaviors.

Despite these limitations, this study is one of the first to utilize a measure of future orientation focused on job and career outcomes in relation to violent behaviors among youth. Other researchers examining the relationship between future orientation and violence have asked youth to respond to more immediate outcomes (*the chance of getting into trouble with the police*) and negative outcomes (*expectancy to live to age 25*) (Birnbaum et al. 2003; Blitstein et al. 2005; DuRant et al. 1994, 2000). While other researchers have found an association between expectations about negative life events and participation in violent behaviors (Birnbaum et al. 2003; Blitstein et al. 2005; DuRant et al. 1994, 2000), we found that youth with more career and job-oriented futuristic thinking participated in less violent behaviors during adolescence. Our findings suggest that this type of future orientation may act as a promotive factor in reducing youth violence.

This study builds on our knowledge of the relationship between future orientation and violence in several ways. First, this study is one of the few to examine the relationship between positive aspects of future orientation and violence among at-risk youth. Second, we focused on a large sample of African American urban youth at risk for violence involvement and the negative consequences of violence. Third, this is one of the first studies to examine the relationship between future orientation and involvement in violent behavior over time. The fact that we found effects despite the limitations suggests that future research in this area is promising.

Finally, our findings suggest that interventions that foster the development of future goals and aspirations for young people could play a vital role in violence prevention efforts. These interventions could help youth develop a sense of hope in their future by providing experiences that assist them to see the possibilities for themselves. They could also help youth develop personal scripts that can help direct their behavioral choices and motivate them to make more healthful choices. In addition, interventions that provide youth with opportunities to practice skills necessary to succeed, while also exposing them to positive adult role models, could help them learn what it takes to reach their dreams.

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